

Samples Near IEL Site Show Only 'Background' Radiation

Industrial Excess Landfill Site
Uniontown, Ohio

April 2004

For more information

If you have questions or comments on activities at this site, please contact one of these EPA representatives:

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You may also call toll-free:
(800) 621-8431, 10 a.m. to 5:30 p.m.,
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All site-related documents are
available at two information
repositories:

Stark County District Library
Uniontown Branch
11955 Market Ave. N.

Lake Township Clerk's Office
12360 Market Ave. N.
Hartville

Or visit EPA's Web site:

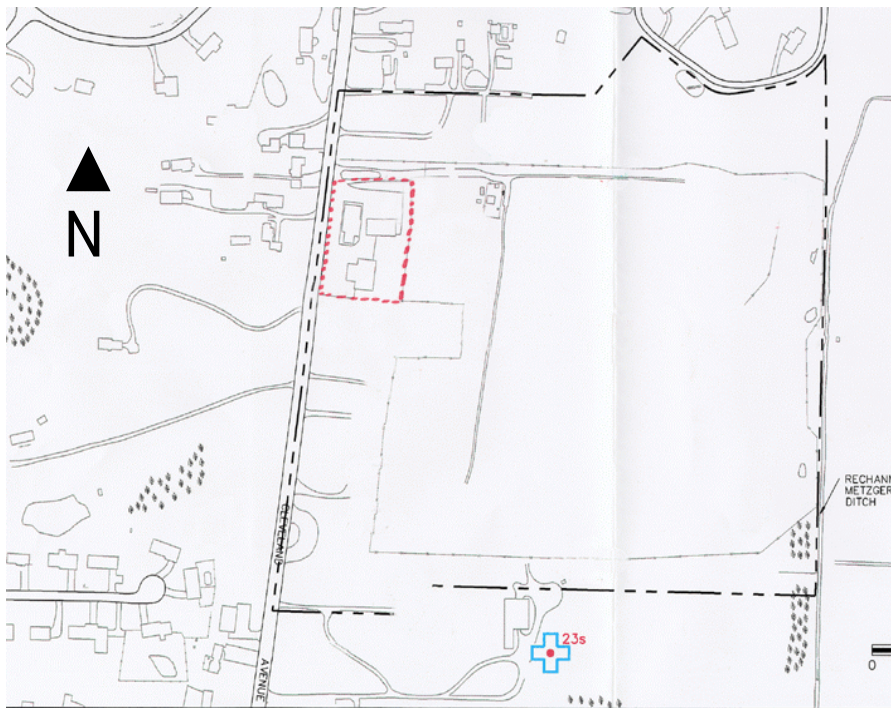
www.epa.gov/region5/sites/iel

The results of testing done on soil samples taken in December show normal radioactivity levels in an area near the Industrial Excess Landfill Superfund site. The samples were analyzed extensively by the National Air and Radiation Environmental Laboratory in Montgomery, Ala. Those test results, according to U.S. Environmental Protection Agency, mean the area does not require cleanup.

Samples taken near site

A team of EPA geophysical field testing and radiation experts took the samples on Dec. 16, with Ohio EPA and Ohio Department of Public Health officials also present. Lake Township officials and local news media also stopped by to monitor the project.

The EPA team took soil samples in an area about 100 feet west of the IEL site fence, facing Cleveland Avenue. A tire and auto repair business had previously been located on this property. Aerial and satellite photos, some of which date to the mid-1960s, show that the area was never part of the landfill.



Samples were taken in the area outlined in red. Buildings shown on the map no longer exist. Monitoring well nest 23 is shown in blue at the south edge of the site, located near the bottom of the map.

Student tests prompt inquiry

Questions about the off-site area arose in November 2000 after an Ohio State University instructor and a group of students walked through the site of the former tire shop with a Geiger counter and found some elevated levels of radioactivity.

What the students observed did not cause any health concerns, but it did prompt the Lake Township Board of Trustees to ask EPA to find out what might have caused the elevated readings.

EPA's radiation experts believed that the OSU students may have run across a naturally occurring source of radioactivity – for example, levels observed by the students were similar to those produced by the clay used to make bricks for construction – but EPA recommended confirming that theory by analyzing soil samples from the area. The samples collected in December prove the source of the radioactivity is a naturally occurring one.

Sampling specifics

On Nov. 4, EPA and state experts walked over the area identified by the OSU class with a sodium iodide gamma radiation detector, an instrument that is more sensitive to gamma radiation than a Geiger counter. The group identified an area of radioactivity about twice the level observed at nearby background locations.

About a month later, EPA personnel again walked the site with the sodium iodide detector to map the measured radioactivity levels, using geographical positioning system technology to determine the exact locations of the highest readings. These locations were then staked for soil sampling.

Measurements taken on the two preliminary visits showed elevated radioactivity in the top two feet of soil, but EPA chose to be thorough and drill down to 10 feet for samples.

When the holes were drilled Dec. 16, a radiation detector was lowered into each hole to monitor radioactivity. Technicians planned to collect a sample at the depth where the highest reading was obtained on the detector. However, the detector showed readings were constant all the way down.

In all, four samples were collected for analysis. Two samples came from the former Uniontown Tire location. To provide a background reference point for comparison, EPA collected one sample from a location along the driveway to the site, and another from an area south of the IEL site, near ground-water monitoring well nest 23.

All the samples were analyzed for six radionuclides: thorium (Th-232), uranium (U-238) and actinium (U-235) decay series, along with beryllium-7, cesium-137 and potassium-40. The thorium, uranium and actinium decay series are commonly found in soil and stones, as is potassium-40. Beryllium-7 is produced by cosmic rays in the upper atmosphere. Cesium-137 is a remnant of atmospheric nuclear testing in the 1950s and 1960s.

Based on the tests, EPA concluded that the radioactivity does not warrant further investigation.

A technical memo summarizing the Dec. 16 sampling effort is on file, along with other IEL documents, at the Stark County District Library, Uniontown Branch, and the Lake Township Clerk's Office.

Greening up the site

EPA's remedy for the IEL site calls for shrubs and grass – what's called a "vegetative cover" – to be planted over the landfill site. The first planting is expected to begin the week of April 26. If the weather is good enough to begin the first phase of this landscape work, residents can expect to see work crews and construction equipment throughout the week.